

Disaster Resilience Leadership

DRLS 6010	<p>Human Factors</p> <p>Human Factors represents one of the four academic pillars of the Disaster Resilience Leadership Studies (DRLS) academic program. The course focuses on understanding the human behavior of survivors, workers and leaders in various contexts and how to facilitate thriving and human development. It centers on the role leadership plays in facilitating resilience in self and others (including large and small human systems) when faced with psychosocial trauma across all phases of the disaster life cycle. Specific topics covered include trauma theories, behavioral determinants of decision making, psychosocial needs of specific populations, and conflict management. Learning objectives focus on developing student competencies in these areas. The course employs case study, guest lectures by nationally-known experts, and simulation techniques, drawing on major and current global disaster threats.</p>	3
DRLS 6020	<p>Disaster Risk Management & Leadership</p> <p>Disaster Risk Management and Leadership represents one of the four academic pillars of the Disaster Resilience Leadership Sciences (DRLS) academic program. The course focuses on understanding evidence-based best practices and policies for disaster operations that strengthens disaster resilience in affected communities. It centers on the role leadership plays in guiding disaster operations and policy across all phases of the disaster life cycle (preparedness, response, recovery, and risk reduction). Learning objectives focus on developing student competencies in these areas: hazard analysis, disaster risk and vulnerability, disaster preparedness and risk reduction, disaster response and recovery, approaches and issues related to protection of beneficiaries and staff, crisis communication and informatics, and advocacy in crisis management settings.</p>	3

DRLS 6030	<p>Leadership Analytics</p> <p>Leadership Analytics represents one of the four academic pillars of the Disaster Resilience Leadership Studies (DRLS) academic program. Leadership Analytics is the study of decision support techniques that enable leaders/decision makers to reach decisions that promote Disaster Resilience. This course will help familiarize students with the theory and methods of decision analysis and the role of this evidence in reaching decisions in the context of disaster resilience. The theory and methods of decision analysis are combined with applications of particular analytical methodologies that are useful to the measurement of disaster resilience such as forecasting, social network analysis, demographic analysis and visualization analytics. This course covers a range of topics that develop student competencies to make evidence-based decisions that improve disaster resilience outcomes.</p>	3
DRLS 6040	<p>Environmental Hazards Sciences</p> <p>Environmental Hazards Sciences represents one of the four academic pillars of the Disaster Resilience Leadership Studies (DRLS) academic program. The course focuses on understanding the most effective methods of measuring the impact of and managing disaster-related consequences including all types of hazards for unwanted environmental disruptions. It centers on the role leadership plays in guiding environmental and hazards responses across all phases of the disaster life cycle from preparedness to response to recovery and future risk reduction. The Academy has identified specific competency areas within this academic pillar, including hazard modeling and mitigation, risk management and analysis, and environmental justice.</p>	3
DRLS 6032	<p>Quantitative Research and Analysis in Disaster Resilience</p> <p>This three-credit course focuses primarily on the principles, methods, and applications of quantitative data analysis used in disaster resilience research. The course emphasizes the practical application of data analysis knowledge in both assessing the quality of existing research evidence and contributing to knowledge through systematic inquiry on topics of concern to leaders in disaster resilience. The utilization of computer applications for data management and analysis is stressed. Disaster resilience leadership is a</p>	3

	<p>complex endeavor requiring many levels of information and understanding. In order to be effective and competent, practitioners must be able to organize and access various types of information, continually add to their knowledge through critical assessment of research in their fields of interest, analyze field data to better understand and evaluate their practice, and effectively communicate knowledge and ideas to others. The focus of the course is on conceptual understanding and practical application of the most frequently used statistical methods for analyzing and evaluating quantitative social data. Basic descriptive and inferential statistics will be presented. Students will obtain skills in coding and entering data, creating data sets, and applying statistical techniques to analyze and display quantitative data using IBM SPSS. Successful students will gain sufficient knowledge of data analysis methods and their underlying assumptions to critically evaluate existing quantitative research studies for validity and usefulness, as well as to choose appropriate techniques for a given question and set of data, perform the selected analysis using IBM SPSS, and accurately report and interpret findings from the analysis.</p>	
DRLS 6110	<p>Research and Evaluation in Crisis and Disaster Settings</p> <p>Evaluation is the key organizational tool for both accountability to affected people and those providing the funding as well as learning from individual responses to improve performance. This is a practical skills based course that will build a student's capacity to conduct, manage, and use the results of evaluations (impacts and process evaluation methods) in emergency response and humanitarian action.</p>	

DRLS Electives

DRLS 6015	<p>Disaster, Displacement, and Resilience</p> <p>Course will provide future disaster resilience leaders with a humanistic framework for understanding the cultural dynamics of forced migration and its connection to contemporary processes of global social transformation, the proliferation of transnational communities, and emergent</p>	3
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	conceptual spaces of identity formation during exile. The course offers a cross-cultural and interdisciplinary exploration of the human impact of natural, technological, and social disasters. The study of post-disaster human displacement, marginalization, and resettlement will investigate the dualistic concepts of vulnerability and resilience, the role of cultural networks and social capital in community revitalization, and the diverse experiences and adaptive capabilities of refugees, asylum-seekers, and internally displaced populations.	
DRLS 6016	<p>Vulnerable Populations</p> <p>Course will provide future disaster resilience leaders with a fundamental understanding of the social constructions of human vulnerability to disasters, conceptualizing populations at risk in a disaster framework and review of best practices in vulnerability reduction through capacity-building. The course offers a cross-cultural and interdisciplinary exploration of culturally sensitive strategies responsive to the needs of vulnerable populations, a comprehensive approach to engaging communities through the use of vulnerability and capacity assessment (VCA), and the social, political, economic, and cultural inequalities that represent intersecting vulnerabilities. The study of vulnerable populations will incorporate a humanistic perspective, investigating the role of cultural competence and the need for a participatory multi-stakeholder approach in community-based disaster risk reduction and sustainable development.</p>	3
DRLS 6017	<p>Gender and Disaster Risk Reduction</p> <p>Course examines the critical role that women play in strengthening community resilience to multiple disasters, the importance of women's knowledge and experience in the formulation of comprehensive adaptive strategies, and the need for their inclusion in disaster risk reduction and sustainable development planning. The course offers a cross-cultural exploration of the unique needs of women throughout the complete life-cycle of a disaster event and the advantages gained from female participation in disaster preparedness and response. The interdisciplinary study of disasters and their effects on women will investigate gender-bias in disaster practices, the cultural and organizational vulnerability of women, familial disruption and hazard perception, post-disaster domestic and sexual violence against women, and the plight of female refugees.</p>	3

DRLS 6021	<p data-bbox="521 184 1268 254">Disaster and Humanitarian Assistance Standard Operating Procedures</p> <p data-bbox="521 289 1268 1549"> The course focuses on the practice of procedure development for emergency preparedness and response. The first part of the course focuses on building an evidence base of better practice in emergency preparedness and response through the use of After Action Reviews and other forms of systematic enquiry. Resilience at the community level continues to be and is increasingly interdependent with the capacity and role of voluntary and civil society organizations. Capabilities and challenges to effective response for a broad range of governmental and non-governmental organizations will be discussed. Each organization active in crisis and disaster has a different role to play in preparedness and response, and students will use their study of different organizations to begin to construct a concept of humanitarian and emergency response space. The Inter-Agency Standing Committee's 'Transformative Agenda' will be used as a teaching case study on process of alignment of operational capacity with commitments and mandates. Students will explore how an organization's capabilities are appropriately or inappropriately matched with their commitments to preparedness and response as a starting point for development of procedures and policy. In the next section of the course students examine operational frameworks commonly in used by national and international emergency response organizations including Incident Command System (ICS) used the USA. Presentations on the functional organization of emergency response and individual functional areas will follow. The last section of the course will present organizational structures to support the use and maintenance of SOPs. Procedure communication, capacity building, and simulations will be presented. </p> <p data-bbox="521 1585 1268 1896"> Skill-based practical activities on procedure and policy development will accompany most class meetings. International standard 'Quality Management System' approaches will serve as a guide for studying the process of procedure development. Students will practice using a 'Process Approach' to articulating organizational processes as a first step towards describing the functional organizational structure. The students will become familiar with a number of other participatory tools for the description </p>	3
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	<p>of roles, responsibilities, resources, and accountabilities in organizations. The goal of these skill acquisition activities is to prepare students to be able to work with operational organizations to elaborate standard seven section procedures that accurately describe the actual mechanisms at functional level. Skills learned in the course will be applied to challenges of emergency preparedness and response by local and community-based organizations. In final group projects, students will be paired with local organizations to develop SOP for preparedness and/or response in case of an emergency. At a minimum, these projects will include an organizational description including commitments and a functional organogram. SOPs will be developed for a minimum number of procedures for preparedness, readiness, and early action in the event of a crisis or disaster.</p>	
DRLS 6031	<p>Crisis Informatics and Analytics</p> <p>This course will explore emerging information and communication technologies (ICT) for disaster management. The course is designed for future leaders of disaster management organizations, drawing on the expertise of technologists who work on disaster-related software and the practitioners using tools. At the end of the course, the student will be familiar with a range of existing and emerging software and hardware tools that are used in disaster management and have a high-level understanding of how the tools work and the contexts in which they might be applied. There will also be the opportunity to engage and develop relationships with a community of technology disaster responders.</p>	3
DRLS 6310	<p>Leadership Evaluation and Consulting</p> <p>The course teaches and trains master's-level students the appropriate and ethical standards of practice in (a) evaluating the quality and style of leadership in a particular organization, (b) reporting on the results and suggestions from the evaluation; (c) assisting leaders in devising an organizational, systemic plan for improving leadership skills, and; (d) coaching and consulting with the leadership. Thus, students will learn first-hand how to help organizations make significant improvements in the organization and its effectiveness with specific and measurable outcomes by focusing on resilience and strategic leadership capacity building.</p>	3

DRLS 6330	<p>Proposal Development and Grants Management</p> <p>Course will provide future disaster resilience leaders with the knowledge and skills involved in developing a competitive grant proposal to secure external funding from government agencies, corporations, and private foundations. Understanding the fundamental components of a grant proposal, as well as gaining familiarity with the current funding environment, and managing a successful program grant to completion will be examined. The course presents a historic overview of philanthropy while identifying potential funders, exploring how the generic structure of proposals varies according to socio-cultural and institutional setting.</p>	3
DRLS 6710	<p>Food Security Information Systems and Logistics (DRL Summer Institute, Italy)</p> <p>This course offers a unique opportunity to interact with logistics and information systems experts from the UN and international civil society. Learning is reinforced by field visits to the organizations and the UNHRD where students can learn how these systems support ongoing responses around the world.</p>	3
DRLS 6720	<p>Food Security and Food Aid in Humanitarian Context (DRL Summer Institute, Italy)</p> <p>This course compliments lectures, readings, and lab work with generous opportunities to interact with professionals from UN Agencies and international civil society. Guest lectures by experts and field visits to the principle UN Agencies are an important part of the course.</p>	3
DRLS 6730	<p>Food Security and Resilience (DRL Summer Institute, Italy)</p> <p>This course will examine the impact of disaster and crisis on food security and nutrition outcomes and the role of policy and programs in enhancing the ability of communities and households to manage food security related risk. Students in the course will spend the first 10-days of the course in studying core elements of food security resiliency in lectures, guest lectures, seminar format and a practical policy/program review activity. FAO's 5-year strategic plan includes a strategic objective on resilience and during the final days of the course students will be able to visit FAO and discuss concepts from the course with the foremost experts in the field.</p>	3

Interdisciplinary Electives
DRLS Academic Pillars

Human Factors

GEHS 6950 / SOWK 7070	<p>Psychosocial Aspects of Disaster</p> <p>The course covers the theoretical development, history, and empirical studies of the psychosocial dynamics and sequelae of disasters. Characteristics and types of disasters, reactions and risk factors, as well as trends in disaster mental health are examined. Emphasis is placed on inclusion of psychosocial considerations in the planning, preparation, and very early intervention phases of a disaster. Vulnerable populations are of particular interest in highly interactive case-based learning through interdisciplinary team labs for application in situations such as natural disaster, environmental health crises, pandemic illness, or threats to national security. Baseline resilience planning is required of all students planning to work in disaster or emergency response fields.</p>	3
GEHS 7930	<p>Special Needs in Disaster Response</p> <p>This course characterizes the special needs of vulnerable populations in a crises environment as well as the special needs imposed on a population at large in the evolution of a disaster. The course also how to most effectively apply available resources to maximize community and individual survival under extraordinary circumstances.</p>	3
GEHS 7950 / SOWK 7080	<p>Psychosocial Interventions in Disaster or Crisis</p> <p>The course covers the development and application of both brief solution-focused and crisis intervention methods within the context of biopsychosocial resolution in healthy human development and social functioning. Emphasis is placed on practical application of techniques in situations such as natural disaster, death, traumatic injury or illness, pandemics, violent crime, terrorism, suicide, chronic physical and mental conditions, and severe family dysfunction. The clinical-community approach is demonstrated through case-based learning and simulations.</p>	3

PSYC 6590	<p>Stress and Trauma</p> <p>This course provides an overview of the psychobiological bases of stress and trauma reactions and related psychological disorders.</p>	3
PSYC 6600	<p>Stress and Trauma Laboratory</p> <p>In this laboratory course students will complete an empirical research project on a subject within the field of stress and trauma.</p>	1
SOWK 7710	<p>Contemporary Issues in Global Context: Psychosocial Well-Being and Cross-Cultural Practice</p> <p>Whether you are working within the US or abroad, having a knowledge base that promotes understanding of global health and psychosocial issues and various social capacities to address these issues is paramount. In this course students will study the application of social development in the context of child welfare programs, health-based projects, psychosocial wellbeing, and reconciliation post-conflict. Prevention and intervention strategies are key components placed within a global framework when addressing social problems, particularly in developing and least developed countries.</p>	3

Disaster Risk Management and Leadership

GEHS 6430	<p>Crisis and Emergency Communication</p> <p>The course is a fast-paced, interactive course that focuses on the essential knowledge and tools needed to navigate the harsh realities of communicating to the public, media, and stakeholders during an intense public emergency, including terrorism. The course content will meet the crisis communication training needs of distinct groups (e.g., public health professionals, medical and health professionals, emergency response officials, community and civic leaders, the private business sector and volunteer organizations) at the community, regional and national level.</p>	3
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GEHS 6930	<p>Populations Issues in Disaster Management: Shelter, Acute Care, Immunization and Forensics</p> <p>The United States is among other global communities that attempt to prepare its citizens for potential mass casualty events such as natural disasters, terrorism, or a pandemic flu outbreak. This course introduces disaster theory and overviews the United States' National Response Framework. Core population health issues that present during the management of disasters are examined. Developing preparedness at the local level is emphasized. Fundamental concepts of emergency management and leadership are discussed.</p>	3
GEHS 7930	<p>Special Needs in Disaster Response</p> <p>This course characterizes the special needs of vulnerable populations in a crises environment as well as the special needs imposed on a population at large in the evolution of a disaster. The course also how to most effectively apply available resources to maximize community and individual survival under extraordinary circumstances.</p>	3
IDEV 6430	<p>Organizational Leadership</p> <p>This is an interdisciplinary course that examines the complex challenges inherent to managing non-profit and governmental organizations in developing countries. Central to our examination is the role of leadership in managing social, political, and financial influences upon policy decision-making. Within this context, the class focuses on negotiating constraints in policy development and implementation and draws comparatively from experiences in Africa, Asia, Latin America, and the United States. This course is designed for graduate students intending to work in leadership and management positions at governmental agencies, international organizations, or non-governmental organizations in developing countries. A leadership role is assigned to them in order to put some of the learned theories into practice. For undergraduates, this seminar integrates what students have learned as part of their coordinate major in international development, synthesizing historical developments as well as new concepts in the field.</p>	3
INHL 6150	<p>Public Nutrition and Health in Complex Emergencies</p> <p>Complex emergencies involving conflict, destitution, and often environmental crises, leading to large-scale population</p>	3

	<p>movements, are causing widespread malnutrition, disease, and high mortality among millions of people, especially in Sub-Saharan Africa and parts of Asia. Some of this suffering can be prevented through more effective programs when the refugee and displaced populations become accessible to outside help. This course is designed to familiarize students with methods and approaches for coping with public nutrition and health problems in complex emergencies. It addresses the control of malnutrition (general and micronutrient) through general ration distribution and selective feeding programs, emergency public health measures, and key policy issues. Outside speakers with recent experience in this field contribute to specific topics and with illustrative case studies.</p>	
INHL 6220	<p>Program Skills in Crisis and Transitional Settings</p> <p>This course is designed to equip students with a set of skills related to the assessment and analysis of the social, economic, and policy aspects of complex political emergencies, as well as post-conflict/transitional settings. The course covers selected topics in preparedness, response, and transition in complex political emergencies, and their effects upon the civilian populations and the agencies that seek to assist them. Students develop skills in the following areas: information management, program operations management, and policy and context analysis. In terms of information management, students develop the capacity to adapt surveys to conflict-affected settings and utilize a series of rapid assessment approaches and participatory rural appraisal techniques for data collection.</p> <p>Students also learn to identify and utilize the principal components of crisis prevention and early warning information systems. In terms of program operations management, students develop skills in the construction of a logistics management system appropriate for emergency settings, and learn how to develop key programs of particular importance in post-conflict and transitional settings. In terms of policy and context analysis, students are equipped with analytical skills related to assessing potential harmful effects of humanitarian assistance, international political aspects of humanitarian work, international humanitarian law, and opportunities for promoting conflict resolution, capacity building, and development through humanitarian assistance.</p>	3

3LAW 342	<p>Disaster, Response, and Recovery: Legal and Social Implications</p> <p>This course will focus upon the interrelationships between governmental and other human activities during and after a large disaster, whether natural or manmade. The different roles and attributes of governmental branches and levels will be analyzed against the occurrence and aftermath of hurricanes Katrina and Rita in the Gulf Coast Region of the United States. Students will evaluate the efficacy and consequences of current and proposed disaster legislation and management policies in individual research papers.</p>	2
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Environmental Hazards Sciences

EENS 6050	<p>Natural Disasters</p> <p>An examination of the causes and effects of natural disasters, such as earthquakes, volcanic eruptions, landslides, subsidence, coastal erosion, flooding, severe weather (including hurricanes), and meteorite impacts. Also includes a discussion of options available to mitigate disasters.</p>	3
EENS 6680	<p>Volcanology</p> <p>The study of volcanoes including volcanic landforms, eruptive mechanisms, and tectonic environments.</p>	3
GEHS 6410	<p>Water and Sanitation Field Operations</p> <p>This course is designed for students who will be working in areas, especially in developing countries, where contaminated water and improper sanitation are the cause of serious health problems. In this course, fundamental concepts will be taken from the classroom to field installations. The course will emphasize the design and construction of water systems (wells, springs, rain collection systems) and building individual of human waste disposal systems.</p>	3

GEHS 6470	<p>Management of Natural Resources</p> <p>This course is designed to introduce students to the relevance of sustainable management of natural resources to public health. This is accomplished by identifying problems of natural resources use, examining a number of natural resources management policy tools and laws, and applying them to public health benefits. Ecosystem services and the management of air, water, wetland, agricultural land, forest, global climate change and ozone depletion are some of the topics covered. Students are given case-study based assignments to encourage their skill development in applied natural resources management for better public health protection.</p>	3
GEHS 6760	<p>Environmental Ethics</p> <p>This course introduces students to the ethical issues in environmental resource management and the environmental health outcomes. It debates the various ethical theories on human relationship to environmental resources, and offers critical examinations of the ethical basis of a variety of environmental management policies and approaches. Utilizing a case study approach, it examines some practical ethical failures and successes in environmental stewardship. The course discusses the APHA code of ethics and explains the benefits of the code to environmental public health professionalism and practice.</p>	3
GEHS 6920	<p>Environmental Monitoring, Sampling and Analysis in a Disaster</p> <p>This course is designed to provide students with necessary knowledge and tools for sampling and monitoring of the environment following a disaster such as floods, hurricanes, earth quakes, explosions, etc. During this course, students will also be exposed to field sampling and become familiar with laboratory instruments used for chemical, biological and physical sample analysis.</p>	3
GEHS 6940	<p>Environmental Aspects of Disaster Recovery</p> <p>This course addresses the process of disaster recovery as the most costly and complex phase of the disaster cycle. The content focuses on critical outcome standards guiding actions during the recovery phase of a disaster to achieve community preparedness.</p>	3

IDEV 6610	<p>Environment and Development</p> <p>Developing countries face serious environmental challenges such as resource exploitation, rapid industrialization, disadvantageous trade, and labor. This course identifies potential environmental problems that may arise during development while analyzing global and local environmental problems. The class presents potential avoidance and mitigation measures that may be implemented to guide a developing economy toward responsible and sustainable development.</p>	3
4Law 503	<p>Environmental Law: International</p> <p>This course examines the basic international legal setting for the protection and management of the environment. It discusses how international law is made and applied, the role of international environmental regimes or institutions, transboundary liability and compensation, enforcement strategies and compliance control mechanisms. Major themes of the course include human rights and the environment, free trade and environmental protection, the financing of global environmental protection measures, the protection of biodiversity, North-South issues generally, as well as various regulatory regimes for the protection of the global commons and internationally sensitive natural resources, including the Climate Change Convention.</p>	3
4LAW 608	<p>Environmental Law: Natural Resources</p> <p>This course is one of the two foundation courses in environmental law and presents a survey of programs that govern the use and protection of natural resource systems, including energy, mining, timber, grazing, transportation and water resource development. Special attention is given to the National Environmental Policy Act, and to management statutes for public lands, forests, parks, refuges, wilderness areas, and endangered species.</p>	3

Leadership Analytics

EENS 6150 & EENS 6151	<p>Introduction to Geographic Information Systems</p> <p>This course is designed to give students a general understanding of geographic information systems (GIS) and the Environmental Systems Research Institute (ESRI) ArcGIS software. The approach taken is detailed instruction in utilizing ArcGIS to solve problems in the earth and environmental sciences. Project required.</p> <p>*Note- EENS 6151: Laboratory to accompany Introduction to Geographic Information Systems</p>	3
GEHS 6680	<p>Risk Communication</p> <p>This course is designed to improve written and oral communication skills and to provide hands on experience in the art of two-way communication of environmental issues between scientists and managers, policy makers and the public. Discussion topics include: Principles of communication theory, message development and target audience identification, public perceptions of health risks, community perspective and listening to communities, communicating the news media and policy makers are covered. Written and oral presentation exercises include fact sheets, press releases, mock public meeting, policy briefing papers, presenting and debating environmental findings. Each student will develop, present and critique oral presentations and written materials.</p>	2
HSMG 7710	<p>Quantitative Decision Models</p> <p>This course encompasses a body of knowledge, a set of quantitative skills, and an orientation towards managerial situations which provide managers greater insight and analytic opportunities for improving the managerial process. Focuses on the systematic planning, direction, and control of the organizational processes that turn resources such as labor, equipment, and materials into services and the quantitative analysis that supports these decisions. In this environment, the processes involve allocation, scheduling, and procedural decisions that result in the effective and efficient utilization of resources for the delivery of health care services.</p>	3

IDEV 6310	<p>Ethnic Conflict</p> <p>The Ethnic Conflict course is designed to provide you an in-depth understanding of violent group conflict and its relationship to sustainable human development (SHD - Economic development, Political development, Health etc). Violent conflict that engulfs countries, parts of countries and in some instances groups of countries and regions, have become commonplace, especially in the developing world. Since 9/11 international news has had a strong focus on violence, wars and acts of terrorism with ethnic roots. US has willy-nilly got itself into a position where we have accepted, rightly or wrongly, the task of nation building in some countries that have deep ethnic divisions, no mean a challenge even under the best of circumstances.</p>	3
IDEV 6430	<p>Organizational Leadership</p> <p>This is an interdisciplinary course that examines the complex challenges inherent to managing non-profit and governmental organizations in developing countries. Central to our examination is the role of leadership in managing social, political, and financial influences upon policy decision-making. Within this context, the class focuses on negotiating constraints in policy development and implementation and draws comparatively from experiences in Africa, Asia, Latin America, and the United States. This course is designed for graduate students intending to work in leadership and management positions at governmental agencies, international organizations, or non-governmental organizations in developing countries. A leadership role is assigned to them in order to put some of the learned theories into practice. For undergraduates, this seminar integrates what students have learned as part of their coordinate major in international development, synthesizing historical developments as well as new concepts in the field.</p>	3